

**System and Method for Virtual Devices
Using a Plurality of Processors**

ABSTRACT

A system and method is provided to allow virtual
5 devices that use a plurality of processors in a
multiprocessor systems, such as the BE environment. Using
this method, a synergistic processing unit (SPU) can either
be dedicated to performing a particular function (i.e.,
audio, video, etc.) or a single SPU can be programmed to
10 perform several functions on behalf of the other processors
in the system. The application, preferably running in one
of the primary (PU) processors, issues IOCTL commands
through device drivers that correspond to SPUs. The kernel
managing the primary processors responds by sending an
15 appropriate message to the SPU that is performing the
dedicated function. Using this method, an SPU can be
virtualized for swapping multiple tasks or dedicated to
performing a particular task.